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Analysis and news on trade and environment

VOLUME 9, ISSUE 3 – APRIL 2015



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BIOTECHNOLOGY

A review of WTO rules and GMO trade

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Agricultural biotechnology and climate change

POST-2015 DEVELOPMENT AGENDA

Trade tools in the new UN development framework



International Centre for Trade
and Sustainable Development

BIORES

VOLUME 9, ISSUE 3 - APRIL 2015

BRIDGES TRADE BIORES

The leading authority on news and analysis emerging from the trade and environment nexus.

PUBLISHED BY

ICTSD

International Centre for Trade and Sustainable Development

Geneva, Switzerland

www.ictsd.org

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Spotlight on the GMO trade debate



Genetically modified (GM) crops, some 20 years after their commercialisation, have been widely adopted internationally. In 2010 GM crops covered an estimated 148 million hectares in 29 countries while a further 30 countries have granted regulatory approval for GM crop import. Over 76 percent of global soybean acreage consists of GM varieties and almost 50 percent of the world's cotton is biotech. According to some experts, biotech crops have been among the fastest adopted crop technology in the history of modern agriculture. Four main GM crops – corn, soybeans, cotton, and canola – are widely traded.

GM crop regulations and policies, however, vary from country to country and continue to prompt deep, multifaceted, and impassioned debate among groups of producers and consumers around the world. GM crop proponents argue they could help farms tackle production challenges and help to feed growing populations. Opponents express concern around the possible risks "franken-foods" might have on human health, as well as related impacts on the environment, biodiversity, market monopolies, and negative impacts on poor and small-scale farmers.

These divisions are currently visible in public debates over a planned Transatlantic Trade and Investment Partnership (TTIP) between the US and the EU. Some environmental groups have argued that US negotiators wishing to increase market access for US agri-business could see EU GM labelling requirements weakened. The European Commission has said that the trade negotiations will not affect its GM approval procedures.

EU ministers recently approved legislation allowing individual member states to ban the cultivation of a given GM crop within their territory even when EU authorities had satisfied themselves about the safety of such cultivation. The Commission is now also reportedly reviewing the EU's biotechnology approval process for GM product importation.

In this issue of BioRes, Tim Josling takes a look at some of the WTO rules that are relevant to aspects of the transatlantic GM crop debate, particularly in the case where importing countries are concerned about GM foods. In a separate article, Travis Lybbert and Daniel Sumner study whether agricultural biotechnology could help to tackle climate change, and propose policy options for relevant agricultural technology diffusion.

Turning to the broader sustainability agenda for the year ahead, a BioRes interview with the Republic of Korea's Deputy Permanent Representative to the UN, provides a view from New York on the role for trade in the sustainable development goals. An article by ICTSD's Alice Tipping looks at how to build coherence between the ongoing post-2015 development agenda process and talks on an outcome document for the Third International Conference on Financing for Development.

Can trade rules rise to the challenges posed by future production and consumption trends? And what role for trade in a future-orientated vision of sustainable development? Write to us and we may publish your letter in a future issue. You can also follow us on Twitter and Facebook. We appreciate both your time and your feedback.

BIOTECHNOLOGY

A review of WTO rules and GMO trade

Tim Josling

Genetically modified organisms (GMOs) continue to be hot button topic on both sides of the Atlantic and beyond. What rules govern international trade in GM food?

Which WTO rules govern international trade in agricultural and food products containing genetically modified (GM) materials? This question is of growing interest to a number of countries facing decisions as to whether to allow GM ingredients in food supplies and to permit the cultivation of GM crops within their territory.

This article attempts to clarify the issue by discussing the variety of international trade rules that may be relevant in the case of an importing country concerned about GM foods. It is not, however, intended to provide a legal interpretation of the WTO obligations themselves.

Several WTO Agreements apply to GM products

The widespread commercialisation of GM products dates back only to 1996, two years after the establishment of the WTO. Accordingly the trade rules agreed in the Uruguay Round (1986-1994) did not specifically refer to such products. Nevertheless, the question of government action restricting imports of products that could harm the health of humans, animals, and plants – and by extension the environment – played a major role in the Uruguay Round negotiations.

The Sanitary and Phytosanitary (SPS) Agreement was seen as a significant step forward in this area as it defined more closely the conditions under which governments can restrict imports for health reasons, while the Technical Barriers to Trade (TBT) Agreement dealt with technical regulations, standards, including labelling requirements, and conformity assessment. The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) could also be relevant in cases where the issue of the patentability of GM products comes into question. And the basic articles of the General Agreement on Tariffs and Trade (GATT), incorporated into the WTO as the GATT-1994, that apply to all trade in goods can have fundamental implications for national GM policies.

The "like" products dilemma

The general GATT obligations provide a useful starting point for considering GM issues. A distinction needs to be made between the cultivation of GM crops in a country and the importation for sale on the domestic market of products based on those crops. Nothing in the GATT would oblige a WTO member to allow GM crops to be grown in that country.

Such cultivation bans have been in the news recently as the EU has adopted new regulations to allow individual member states to ban GM crop cultivation within their territory even when EU authorities have satisfied themselves about the safety of the crop in question. If farmers in these countries wanted to be able to grow GM crops the most they could do would be to lobby their own government. Such bans are unlikely ever to result in trade disputes; competing producers in other countries would scarcely object to such restraints even were there to be legal grounds under the WTO to do so.

The WTO rules become more directly relevant when there is trade in GM products or ingredients between countries. In the EU legislation, mentioned above, the responsibility for allowing a GM product to enter the marketing chain is with the EU institutions and not the member states. However, the EU is now also reportedly reviewing its biotechnology approval process, and considering giving member states the option to ban the import of GM food within their territory.

GMO polls

According to some [polls](#), in 2012 20 percent of Americans viewed GMOs "not favourably," while 61 percent of Europeans surveyed in 2010 felt "uneasy" about GMOs.

Most trade rules are by their nature constraints on importing governments while exporting countries by contrast have fewer restrictions on their policies. So the basic rules of the GATT would apply to imports of GM products. These rules are, *inter alia*, that the importing country cannot give to a product of a particular supplier, if from a WTO member country, less favourable treatment than it affords to the "like" product from other suppliers. The imported product should also not be treated, once on the market, in a way that is more onerous than a domestic "like" product. Discrimination against products, say, soybeans, of some overseas suppliers could be a violation of the "most-favoured nation" clause and any extra testing or labelling of imported foods could contravene the principle of "national treatment." Both of the fundamental tenets of the WTO present hurdles for countries banning imports of GM products or applying special conditions on the marketing of such products.

However, though the principles are clear, the practice may be more complex. Suppose that two soybean exporting countries are competing for the same market, and that one of these sells biotech soybeans. The issue here is whether the importing country can ban those imports but still import from the non-GM supplier. Are the two types of soybeans "like products"?

The WTO, and the GATT before it, have had difficulty defining a "like product" though the phrase is found several times in GATT articles. Should the focus be on the physical nature of the product; on the extent to which products are capable of performing the same, or similar, functions in the market concerned (end-uses); on the extent to which consumers are willing to use the products to perform these functions (consumers' tastes and habits); or of differences in tariff classification of the products? If the similarity of the nature of the product is the key then soybean oil from GM crops, for instance, may indeed be "like" – and indistinguishable from – the same product from non-GMO beans. But if the test was whether the consumers in the importing country consider the two products sufficiently different then it may be more difficult to conclude that they were indeed "like products" even if they fall under the same tariff line. A situation could also arise where the treatment of imported GM crops was materially more restrictive than of domestic non-GM competing products. In that case there remains a possibility that a panel might consider the action as a violation of the principle of national treatment.

SPS Agreement

If one gets over the hurdles of non-discrimination and national treatment the WTO also addresses the national regulations governing health and safety consequences of the importation and internal distribution of GM products. These regulations are subject to the disciplines of the WTO [SPS Agreement](#). The agreement specifically applies to regulations designed "to protect human or animal life and health ... from risks arising from additives, contaminants, toxins or disease-causing organisms in imports of food, beverages and feed stuffs" as well as "to prevent or limit other damage ... from the entry, establishment or spread of pests," (SPS Agreement, Annex A, paragraph 1). A regulation banning or limiting imports of GM corn or soybeans, for example, could be covered by this agreement if it were enacted to protect human health or limit damage from the establishment of pests. ❶

This would, however, still then have to comply with the other conditions of the SPS Agreement. The most important of these is the requirement that the measure be "based on scientific principles and is not maintained without sufficient scientific evidence" (SPS Agreement, Article 2). There is also provision in Article 5, paragraph 7 that allows provisional restrictions in cases where scientific evidence is "insufficient." In these cases the country issuing the regulation has an obligation to "seek to obtain the additional information" necessary to apply the objective assessment of risk.

One way that such a condition can be satisfied is to base import regulations on multilateral standards. The SPS Agreement specifically encourages the use of standards set by the Codex Alimentarius Commission (CODEX), a body jointly managed by the UN Food and Agriculture Organization (FAO) and the World Health Organization (WHO), geared towards setting international food standards, guidelines, and codes of practice related to

the safety of international food trade. CODEX has established a task force to consider the problems associated with risk assessment in the case of GM foods.²

The CODEX task force, however, has yet to come up with a set of standards for GM products that is acceptable to the major governments involved. And even if it were to do so it is not clear how many countries would choose to follow proposed CODEX standards. Therefore, in the absence of an international GM risk assessment standard, restrictions on imports of GM products or material if not based on risk assessment and backed up by scientific evidence would be vulnerable to challenge at the global trade arbiter.

Labelling GMO products

Once a product is imported into a country its distribution will be subject to local regulations. In particular, sellers of GM products may be required to attach a label to inform consumers. The WTO oversight of labelling regulations largely falls within the scope of the TBT Agreement.³ Each country can decide whether to require voluntary or mandatory labelling of GM food but the labels must then comply with the provisions of the TBT Agreement. In particular, a measure requiring mandatory labelling should have a legitimate objective, and not be more trade-restrictive than necessary to fulfil that objective. The labelling of GM products in the EU has caused some consternation in the US and Canada, who see this as a way of giving credibility to those who are opponents of biotechnology, but no WTO case has yet focused on this issue. And the situation is made more complicated by movements in several US states that have considered their own GM labelling requirements. CODEX has also been grappling with the question of whether to adopt international standards for the labelling of GM foods through its Committee on Food Labelling. To date there has been a fundamental disagreement within CODEX as to whether voluntary or mandatory labelling is the appropriate response by governments in this area.

The negotiation of the Transatlantic Trade and Investment Partnership (TTIP) could defuse some of the regulatory tensions between the EU and the US although the topic currently remains inflammatory among some consumers on both sides of the Atlantic.

WTO dispute on biotech products

There has been one trade dispute within the WTO where several of these issues were adjudicated. The US complained in 2003 that the EU system of approval of biotech products was so slow that it amounted to a moratorium. In addition the US complained about "safeguard measures" taken by several member states to prohibit the importation and marketing of these products. It was joined in the case against the EU by Argentina and Canada.

At that time some member states had introduced national GM cultivation bans on grounds of assessed risks to human health or the environment. These temporary bans, which had to be periodically extended, nevertheless ran against the views of the European Food Safety Agency (EFSA). Moreover, although these national bans targeted cultivation rather than importation, bitter divisions between member states on the subject allegedly contributed to the slow approval process for biotech products to be placed on the EU's single market.

The complaint listed several provisions of the SPS Agreement that were seen to be relevant. The WTO panel found that the EU had indeed imposed a *de facto* moratorium on most of the biotech product applications pending at the time of the complaint. The panel found that the moratorium was not covered under the SPS as an action taken on the basis

of a risk assessment and that the approval process itself had not been completed without "undue delay" as required.

In addition, the member state safeguards were not justified as a temporary restriction necessitated by the lack of sufficient evidence, and had not been implemented on the basis of a risk assessment as required by Article 5 of the SPS Agreement.^① The panel report was adopted in November 2006. The EU subsequently moved several products through the approval process but the US still considers the backlog unacceptable.

However, although the panel clarified the obligation of governments to move applications at a reasonable pace through approval processes, it did not settle some of the more fundamental GM-related issues. The panel report does not address the question as to whether GM and non-GM products are considered "like" in WTO rules. Nor did the panel report clarify whether existing EU GMO regulations themselves were consistent with the obligations under the SPS Agreement. And the panel avoided any statements that might indicate whether GM products were safe. Moreover, other trade-related biotech issues that have now emerged since the ruling have to do with the requirements for segregation of GM and non-GM crops, the tolerance levels for "adventitious presence" of GM materials, and the costs of testing for traces of GM products, all may be an open question where WTO judges are concerned.

Choice of two paths?

In practical terms, importers of GM ingredients are left with a choice between two competing paths. One path is predicated on the fact that scientific evidence has yet to show any deleterious effect on human health from consumption of GM foods. The accidental release of GM material may pose some problems for the environment or for other types of farming, such as organic production, but a ban on imports may not be deemed the least trade-disruptive response. Labelling on a voluntary basis allows consumers to be aware of the method of production if they are indeed interested.

The other path is that of "precaution" based on the notion that scientific evidence is as yet inadequate to be certain of the long run impacts of GM products. This view considers that strict regulation of imports and mandatory labelling is needed and that restrictions on domestic production are warranted until the safety and environmental issues become clear. This latter strategy could survive WTO challenges if carefully designed but the regulations themselves would need to be consistent with the SPS and TBT Agreements.

Hopefully some rapprochement between these two different approaches will become possible in the near future. The negotiation of the Transatlantic Trade and Investment Partnership (TTIP) could defuse some of the regulatory tensions between the EU and the US although the topic currently remains inflammatory among some consumers on both sides of the Atlantic. Any such regulatory progress, however, would be to the significant benefit of countries still in the process of developing their own regulatory framework in this area.



Tim Josling

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- ① One might have to establish that the potential risks associated with the GM product came under the heading of "additives, contaminants, toxins or disease-causing organisms." Presumably the exporting country would have to make the case that the SPS Agreement was the relevant yardstick in this case. Thus the issue of whether GM import regulations come under the purview of the SPS or the TBT Agreement is still a matter of contention in the WTO.
- ② The other two international standard-setting bodies, the World Organisation for Animal Health (OIE) and the International Plant Protection Convention (IPPC) have both established working groups on GM issues, but have not emerged with specific standards.
- ③ A health label regulation, however, would be covered by the SPS Agreement.
- ④ The EU argument that scientific evidence was unavailable was somewhat undermined by the fact that the European Food Safety Authority had found that GM products did not pose a significant risk to human or plant health.

AGRICULTURE

Agricultural biotechnology for climate change mitigation and adaptation

Travis Lybbert and Daniel Sumner

Can biotechnology help respond to and deal with climate change and other agricultural development issues?

Climate implications for agriculture are clear, direct, and significant. Likewise agriculture has important implications for global greenhouse gas (GHG) emissions. Fossil fuel for farm inputs and equipment, animal agriculture, land clearing and preparation are significant contributors to GHG emissions. The Intergovernmental Panel on Climate Change (IPCC) has reported that farming is responsible for over a quarter of total global greenhouse gas emissions. By contrast, the share of farming in global gross domestic product (GDP) is about four percent, indicating that agriculture is highly GHG intensive. Important interlinkages between agriculture and climate have broadened the policy agenda for both. The climate change agenda includes farming as simultaneously vulnerable to climate change, a worrying source of GHG emissions, and – through adjustment in production practices – a potentially potent source of mitigation.

What role can innovative agricultural practices and technologies play in GHG mitigation and adaptation to climate change? What policy and institutional changes would encourage the innovation and diffusion of these practices and technologies to developing countries? We address these questions in a [research paper](#) and subsequent article published in science journal [Food Policy](#) in 2012 on which this article is based.

Climate effects on agriculture production

Forecasting climate change is imperfect, complex, important, and often controversial. While disputes remain, the consensus foresees accelerating increases in average annual temperatures and changes in precipitation, coupled with increasingly erratic intra-annual weather patterns. Forecasters agree that many developing country climates will become less suitable for current agricultural practices because places that are now warm and humid will be disadvantaged relative to places that are now cooler. While the precise nature of these changes is uncertain, it is clear that these climate changes will alter global patterns of comparative agricultural advantage through changes in relative productivity and prices.

Some agricultural production in temperate North America, Europe, and Asia may benefit from higher mean temperatures and longer growing seasons, while agriculture in much of the rest of the world will likely suffer declines in productivity. This research is ever-evolving, and some recent work suggests that grain yields in temperate zones may be more vulnerable than previously thought, but the basic patterns are worth noting. Higher temperatures in already-hot regions will likely reduce crop yields and effectively shorten the growing season by introducing longer periods of excessive heat.

In 2010, the best available estimates combining agronomic and economic modelling forecasts suggested that the aggregate impact of these effects will reduce global agricultural production by six percent by 2080 relative to expected production in the absence of climate change. Of course, regional disparities around this global average impact are substantial. Without increased innovation India and Africa are projected to see reductions of agricultural output by 30 percent or more relative to no climate change.

With expected hotter temperatures and changing precipitation patterns, controlling water supplies and improving irrigation access and efficiency will become increasingly

important. Climate change will burden currently irrigated areas, and may even outstrip current irrigation capacity due to general water shortages, but farmers with no access to irrigation are clearly most vulnerable to precipitation volatility. Across the Middle East, Northern and Southern Africa and Central Asia, water availability for farms is projected to decline with climate change and population growth in the next several decades. In particular, African farmers are in desperate need of techniques, technologies, and investments that improve water management efficiency and access to irrigation, or find ways to improve incomes with less secure and more variable water availability.

Developing countries are especially vulnerable to climate change because they depend heavily on agriculture, tend to be relatively warm already, lack infrastructure to respond well to increased variability, and lack capital to invest in innovative adaptations. Moreover, within already poor regions, the largest effects will be on the very poor who tend to earn their livelihoods from farming. Climate, however, is only one of many things that are changing in poor countries and for poor people. If income growth and economic development continue the number of farms and the farm population in developing countries is expected to decline markedly by 2080. With climate change this familiar agricultural transition will likely happen much faster. Moreover, some marginal areas in Africa and India may abandon agriculture altogether not because of increased labour productivity off the farm, but because of declining farmland productivity and rising production uncertainty. While a falling employment share in agriculture may help reduce a population's direct vulnerability to climate change, the political tensions and urban pressures associated with such a speedy transformation could be particularly problematic.

Agricultural technologies, including GM crops

The core challenge of climate change adaptation and mitigation in agriculture is to produce (i) more food, (ii) more efficiently, (iii) under more volatile production conditions, and (iv) with net reductions in GHG emissions from food production and marketing. Agricultural technologies will play a central role in enabling producers to meet these core challenges. However, while most technologies have climate implications, some of them are of particular relevance to developing country agriculture and climate change.

Several new varieties and traits offer farmers not only increased productivity, but also greater flexibility in adapting to climate change, including traits that confer tolerance to drought and heat, tolerance to salinity – for example, due to rising sea levels in coastal areas – and early maturation in order to shorten the growing season and reduce farmers' exposure to risk of extreme weather events. Climate change will also lead to new pest and disease pressures. The nuances of temperature changes –higher low temperatures and fewer freezes – could shorten dormant periods, speeding up pest and disease growth, and changing the dynamics of these populations and their resistance. Crops, varieties, and traits that are resistant to pests and diseases will improve producers' ability to adapt to climate change. These varieties reduce carbon emissions by decreasing demand for pesticides and the number of in-field applications. These promising new traits and varieties, many still in development, can emerge from traditional breeding techniques that leverage existing varieties that are well suited to the vagaries of local production environments, but also importantly from more advanced biotechnology techniques such as market assisted selection and genetic modification.

While agricultural biotechnology remains controversial, these techniques provide an especially promising set of tools that have produced dramatic improvements in yield and reductions in production costs and input use intensity. Examples of new crops that have benefited agriculture and reduced emissions include genetically modified crops with pest resistance and herbicide tolerance. Some question whether these benefits are real, but the fact that farmers worldwide have never adopted an agricultural technology as quickly as they have genetically modified (GM) crops suggests otherwise. In 2012, GM crops were grown on roughly 12 percent of the world's arable land with a total reduction due to both the direct and indirect emission effects of GM crops of over 26.7 billion kg of carbon dioxide (CO₂), or the equivalent of removing nearly 12 million cars from circulation.❶

Climate warnings

According to the Intergovernmental Panel on Climate Change (IPCC), climate change poses significant risks for the agriculture sector and for global food security. Crop yields and nutrition values could all decrease under a two degree Celsius planetary warming scenario. At the same time, demand for crops is expected to increase by 14 percent per decade until 2050.

While new traits, varieties and crops will play an important role in climate change mitigation and adaptation, the range of relevant practice and technologies is much broader than this, including water management, production practices, post-harvest technologies, information and forecasting, and insurance. As discussed in our earlier survey, however, understanding the policy and innovation issues raised by this broader set of agricultural practices and related technologies is important since responding to climate change genuinely demands an "all hands on deck" approach.

Challenges

Creating the necessary agricultural technologies and harnessing them to enable developing countries to adapt their agricultural systems to a changing climate will require innovations in policy and institutions at multiple levels. Impediments to the development, diffusion, and use of relevant technologies can surface in several places, from the inception and innovation stages, to the transfer of technologies and the access to agricultural innovations by vulnerable smallholders in developing countries.

Potential constraints to innovation involve both the private and public sectors in both developing and developed countries. While the Consultative Group for International Agricultural Research (CGIAR) has been invaluable to developing countries as a source of agricultural innovation for nearly 40 years, many countries have a long history of large, direct government intervention in both input and output markets in agriculture that have stifled the formation of vibrant private firms and accompanying incentives to innovate.

The process of transferring agricultural innovations across agro-ecological and climatic zones is often subject to agronomic constraints. Agricultural biotechnology has relaxed some of these but it also raises a new set of potential impediments in the form of biotechnology regulations. Although intellectual property (IP) can also constrain technology transfer, it is almost never the most important barrier. Where IP seems to pose a problem, recent institutional and legal innovations provide a point of departure for effective remedies, including humanitarian use licensing, patent pools, and public-private partnership. Often, the most binding constraints occur at the adoption stage, with several factors potentially impeding poor farmers' access to and use of new technologies. These include static, poorly functioning or poorly integrated input or output markets; weak local institutions and infrastructure; inadequate or ineffective extension systems; as well as missing credit and insurance markets.

Policy principles and priorities

Several policy principles and priorities could facilitate climate change mitigation and adaptation in poor countries by improving the innovation and diffusion of important agricultural technologies. We have advocated for the following six policy principles. In the first instance the best policy and institutional responses will enhance information flows, incentives, and flexibility. Secondly policies and institutions that promote economic development and reduce poverty will often improve agricultural adaptation and may also pave the way for more effective climate change mitigation through agriculture. Third, business as usual among the world's poor is not sufficient.

Fourth, existing technology options must be made more available and accessible, without overlooking complementary capacity and investments. Fifth, adaptation and mitigation in agriculture will require local responses, but effective policy responses must also reflect global impacts and inter-linkages. Finally, trade will play a critical role in both mitigation and adaptation, and will itself be shaped by climate change.

Climate change will affect the global pattern of comparative advantage and attempts to block the force of global markets would be costly and counterproductive. Shifts of regional comparative advantage and movement of people out of agriculture defines world history. Wealthy nations such as Norway or Japan can support a few million globally non-competitive farmers, but such an approach cannot be successful for hundreds of millions of small farmers in poor countries. Thus, when considering both adaptation and migration, global agricultural responses must be at the centre of the analysis.

These six principles lead to several specific investments and policy priorities. It will be important to invest in public agricultural research and development (R&D) in developed countries, as these are the major global engine of agricultural productivity and in turn lowering food prices for the poor, according to the World Bank. Simultaneously, new crop and trait combinations will be required to meet demands for global food security, while at the same time coping with or even mitigating climate change. Policymakers must fund and improve public agricultural research capacity in poor countries, especially those facing severe climate change. Multilateral and bilateral investments must target countries where these reforms and long-term commitments are feasible. However, the important role for the public sector R&D does not preclude a vital role for profit-driven private sector R&D in developing countries, and each part of the whole has a distinct role to play. Policy should appreciate, leverage, and create complementarities between agricultural R&D in rich and poor countries and between that emerging from public and private sectors.

Agriculture biotechnology use and trade regulations must also be sufficiently flexible that they do not discourage the transfer or adoption of locally important innovations. Policy options related to this flexibility may relate to the protection of intellectual property (IP), including continued work to negotiate appropriate humanitarian use exemptions and preferential treatment.

While governments may be able to help make privately-owned technologies more widely available and accessible by modifying IP rules and taking advantage of the flexibilities provided by international deals such as the WTO's Trade-related aspects of Intellectual Property Rights (TRIPs) Agreement, public-private partnerships, and other institutional arrangements may be even more effective in some cases. However, although support for agricultural biotechnology as an important option in the coming decades of challenging adaptation in agriculture is growing, but GM food remains a deeply divisive topic among some groups of producers and consumers around the world.

Policies and institutions that encourage the development of competitive and responsive input and output markets in agriculture should take on added urgency in the face of climate change. Appropriate responses to new climate conditions or even seasonal weather forecasts require the ability to make efficient production and adjustments in response to these changing conditions. The single best gauge of efficiency when making these adjustments is provided by price signals in functional markets. Market rigidities from government price policies, parastatal restrictions, and dominant buyers – which may be local co-operatives – all limit the ability of farmers and others to adapt and adjust.

Towards sustainable development

Agriculture has a crucial and unique relationship with climate as well as a crucial and unique role in economic development. It is our primary source of food and important raw materials, has significant potential for mitigation of global GHG emissions, and is particularly sensitive to climate change. Innovations in agriculture have always been important and will be even more vital in the context of climate change. Thoughtful policy responses that encourage the development and diffusion of appropriate agricultural technologies will be crucial to enabling an effective technological response. These policy and institutional responses are particularly critical as they can provide a pathway for steady progress towards climate mitigation and adaptation. Whereas short-term climate variability demands, and deservedly gets our attention, adapting to longer-term changes requires vision and discipline. A careful balance of institutional change and wise investment is required to deal with both the demands of climate change and the opportunities for the poor to continue improving their lives.

This article is based on a [research paper](#) published by the International Centre for Trade and Sustainable Development (ICTSD).



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① Barfoot P, Brookes G (2014), Key global environmental impacts of genetically modified (GM) crop use 1996-2012, in *GM Crops and Food: Biotechnology in Agriculture and the Food Chain* 2014 5, Issue 2: 149-160.

BIORES INTERVIEW

UN Ambassador Hahn on trade and the post-2015 development agenda



Ambassador Choong-hee Hahn

Deputy Permanent Representative of the Republic of Korea to the United Nations in New York. Ambassador Hahn leads the Korean Mission's UN consultations and negotiations on sustainable development goals and post-2015 development agenda. Ambassador Hahn is also the Chair of the 47th session of the UN International Trade Law Commission.

Talks are underway in New York to finalise a post-2015 development agenda, with a set of sustainable development goals (SDGs), designed to map out international priorities for the next fifteen years. In mid-March BioRes spoke with Ambassador Choong-hee Hahn, Deputy Permanent Representative of the Republic of Korea to the United Nations in New York, on the possible role for trade in enabling future sustainable development.

Trade has been included in the proposed sustainable development goals [SDGs] for the post-2015 development agenda both as a means of implementation and, in some cases, as specific targets. Can you give some examples of the positive role trade can play in achieving sustainable development objectives?

[Ambassador Choong-hee Hahn] Trade policy is really a cross-sector issue. It can be defined not only as a governmental measure, but also as factors that influence the results of the international exchange of both goods and services. In this regard trade has the characteristics of both a target and means of implementation.

South Korea offers an example of the positive economic role trade can play. Indeed in the 1960s South Korea's GDP per capita was only US\$80. At that time, the South Korean government started using export-driven industrialisation policies with labour intensive light industry, rather than implementing import-substitution and industrialisation policies of other under-developed countries. And the results as you know, look at the GDP per capita in Korea now, recorded at US\$26,000.

Trade can also play a critical role in dealing with social issues. Trade is mostly composed of exchanges between private actors. In this regard, governments' economic policies with a heavy emphasis on trade can create an environment where social policies are formed by open democratic process decisions, rather than by closed government-led discussions.

This year is also an important one for the UN climate talks in addition to the process ongoing in New York. Where and how can the post-2015 process be complementary to and support climate mitigation and adaptation objectives?

[CH] Climate change is a major challenge facing humanity given the increasing frequency of meteorological disasters – such as rising sea levels, severe droughts, as well as localised torrential rain due to the changes in patterns of precipitation – and the growing magnitude of damages from such events. A systemic response is urgently needed.

At this stage, it is difficult to make predictions on the new development agenda, given that we are still in the negotiation phase. However, the current proposed sustainable development goals include the need to take urgent action to curb climate change and its impacts. Even though we'll discuss the detailed deal on climate change in December at the UN climate talks I think an agreement on the post-2015 development agenda in September is very important. This is particularly true given that some of the goals and targets could provide an overall impetus for climate mitigation and adaptation. The SDGs and post-2015 development agenda will give a positive signal to the discussion and negotiations in December.

The proposed SDGs also invite action on sustainable economic growth, energy, ecosystem protection, sustainable forest management, and other areas that are mutually reinforcing for combating climate change.

One other point I would like to mention is that trade can actually positively impact the environment by sharing environmentally-friendly technology and global awareness of environmental issues. International trade can also generate financial ground for governments to tackle environmental issues at both national and global levels. Moreover the standardisation of domestic environmental regulations is something international trade helps to improve. More countries are now paying increased attention to efforts to boost trade in alternative energy such as solar, hydroelectric, or wind power.

Given your current position, can you tell me a bit more about the UN International Trade Law Commission [UNCITRAL]? How might this body play a role in implementing the sustainable development goals?

[CH] UNCITRAL was created in 1966 with a mandate to further the harmonisation and legitimisation of international law regulating commercial activities and relations. The UN General Assembly resolution that founded UNCITRAL referred to the establishment of rules furthering international trade as one of the most important factors to economic development.

In its subsequent resolutions, the General Assembly emphasised that the implementation and effective use of modern private agents in international trade are essential for good governance, sustained economic development, and poverty eradication.

UNCITRAL ensures that the legal framework for international trade is modern and compatible with evolving business practices. UNCITRAL also helps states eliminate aspects of their local regulation that create obstacles to trade.

The SDG negotiations recognise the need for transformative action to promote inclusive and sustainable growth. These actions range from achieving economic diversity, financial inclusion, productivity gains, trade, sustainable energy, and so on. UNCITRAL is relevant to most of those actions.

Generally, when we talk about "trade" we are referring to the WTO. But I think we have to keep in mind that, as I said previously, it is largely private parties that undertake trade and commercial activities. Commercial law, which is the remit of UNCITRAL, plays a fundamental role in investment and trade – both of which will be critical to the implementation of the post-2015 agenda.

One final point I'd like to mention on UNCITRAL is that more and more private commercial activities are moving towards e-commerce and online trade systems rather than actual markets. I think this new trend will require a greater focus on the importance of regulation, harmonisation, and standardisation of commercial law in order to continue to facilitate growth and economic development, particularly for smaller countries.

What sort of policies do you think are required alongside trade tools to effectively deliver sustainable development?

[CH] The post-2015 development agenda will be based on the principle of balance between the economic, social, and environmental dimensions of sustainable development. The reason why we use the word "dimension" rather than "pillar" is because those three areas should be implemented in a complementary way. For example, employment policy, including the creation of quality jobs, can be linked to energy policy, especially for new renewable energy.

Secretary-General Ban Ki-moon, in his post-2015 synthesis report released last December, emphasised six essential elements for the new agenda; dignity, people, prosperity, planet, justice, and partnership. These are interconnected and so we cannot get one element by sacrificing the others.

POST-2015 DEVELOPMENT AGENDA

Building a coherent role for trade in the post-2015 development agenda

Alice Tipping

What role for trade, and how to build coherence between, the proposed sustainable development goals and the ongoing financing for development talks?

The post-2015 development agenda scheduled to be agreed in New York in September will – it is hoped – guide development plans and policymaking for the next fifteen years. The initiative stems from a UN Conference on Sustainable Development, known as Rio+20 after the Brazilian host city in June 2012, where UN members agreed to develop a set of sustainable development goals (SDGs) to govern future international priorities out to 2030. The SDGs would build on and replace the current Millennium Development Goals (MDGs) that are due to expire at the end of this year. The Rio+20 outcome was geared towards tackling economic, environmental, and social concerns in an integrated manner.

The final set of sustainable development goals and targets will need to be supported by a suite of means of implementation (MOI) measures, which are expected to be drawn in part from the outcome document of the Third International Conference on Financing for Development (FfD3) due to be held in Addis Ababa, Ethiopia in July. The post-2015 agenda and financing for development processes are interrelated in both substance and politics. Getting the goals and targets and support measures over the threshold in September is a delicate negotiating process that is still underway.

Trade-related targets and elements are currently present across the core documents linked to both processes. In an ideal scenario these trade elements would be internally and externally coherent.

To be internally coherent the trade elements of the post-2015 agenda should be mutually supportive. There is also a political element to this internal coherence. Given the breadth of the 17 proposed sustainable development goals, and the 169 targets under them, it is important that the financing for development outcome delivers an agenda that is just as ambitious as the goals themselves.

In terms of external coherence, the trade-related elements of the post-2015 development agenda should ideally not only reflect the global trading system as it is, but point to trade policy's potential contribution to sustainable development through to 2030. Part of this contribution, for example, could be helping to manage the shift from commodity export-led growth to more diversified and sustainable production and consumption patterns.

A zero draft for the Addis Ababa outcome, prepared by co-facilitators of the preparatory process, usefully updates and fills in critical gaps left by the SDGs' trade-related references. However, even when read together, the two documents do not yet point to a clear agenda for trade's contribution to future sustainable development. This article analyses the trade references across both documents and suggests key additions that would help to fill out the broader vision.

Trade and the proposed SDGs

A proposed framework of 17 SDGs and 169 targets agreed in late July last year by a dedicated UN working group includes a variety of trade-related policy reforms – hereafter trade-related targets – that could contribute to different aspects of sustainable development. The proposed SDG framework includes two kinds of targets. These are

general targets whose accomplishment would lead to the achievement of a sustainable development goal and "means of implementation" (MoI) targets that identify enabling actions to support the achievement of other targets. Nearly all of the trade-related targets in the framework are classified as means of implementation. A target around fisheries subsidies in the proposed oceans goal is one exception to this rule.

Several trade-related targets are identified as MoI for specific sustainable development goals. The reform of distortions in agricultural markets, including export subsidies, and other perverse subsidies for fossil fuel consumption and production are listed under proposed goals 2 and 12. Increased support for Aid for Trade is one of only two MoI targets under proposed goal 8 on sustainable economic growth and employment. Several targets also refer to support for access to technology to help address social and environmental priorities, including access to clean water and sustainable energy.

Other trade-related targets are listed under proposed goal 17, "Strengthen the means of implementation and revitalise the global partnership for sustainable development," as cross-cutting MoI. This means that they are geared towards achieving the framework as a whole. They include strengthening the multilateral trade system under the WTO and completing the Doha Development Agenda (DDA) round of trade negotiations. The targets also cover improving market access for developing countries including through duty-free, quota-free market access with simplified rules of origin (RoO) for exports from least developed countries (LDCs).

The SDG framework of goals and targets is now almost finalised. With 17 goals and 169 targets it is an extremely ambitious and wide-ranging agenda.

Trade in the financing for development zero draft

A zero draft for the financing for development outcome document, the Addis Ababa Accord, released on 16 March, lists eight areas where further action is needed to boost development finance. These include domestic public finance; domestic and international private business finance; international public finance; international trade for sustainable development; debt and debt sustainability; systemic issues; technology, innovation, capacity building; data, monitoring, and follow up.

The trade section in the current zero draft starts by providing a complementary narrative to the trade targets in the SDGs. It explains in paragraph 73 that "a universal, rules-based, open, non-discriminatory and equitable multilateral trading system and meaningful trade liberalisation can serve as an engine of economic growth and promote sustainable development," while adding that flanking policies are also necessary, "with appropriate supporting policies, trade can also promote decent work, combat inequality and contribute to the realisation of the SDGs."

The zero draft, building on the outcome documents of the two previous financing for development conferences, complements and adds to the trade agenda in the SDG targets in several important ways. First the zero draft expands on the scope of the SDG trade targets by including trade policy issues beyond multilaterally-agreed rules, explicitly referring to regional integration, regional trade agreements, and investment agreements. It also refers, albeit briefly, to the importance of domestic flanking policies to ensure that trade contributes to sustainable development outcomes. The zero draft also brings back into the post-2015 agenda the crucial issue of trade facilitation that was left out of the final proposed SDGs.

Multilateral trade system

At the multilateral level the zero draft reiterates several trade-related SDG targets, but adds references to recent WTO decisions, thus improving their external coherence. In paragraph 76 the zero draft reiterates the commitment in SDG target 2.b to correct and prevent restrictions and distortions in global agricultural markets, including removing all forms of agricultural export subsidies and disciplining measures with equivalent effect,

Next steps

13-17 April Second drafting session on the outcome document for the Third International Conference on Financing for Development (FfD3).

20-24 April Post-2015 negotiating session focused on means of implementation and global partnership for sustainable development.

18-22 May Post-2015 negotiating session focused on follow-up and review.

15-19 June Third drafting session on the outcome document for FfD3.

22-25 June Post-2015 negotiating session on the outcome document.

13-16 July FfD3 held in Addis Ababa, Ethiopia.

20-31 July Post-2015 negotiating sessions on the outcome document.

25-27 September UN Summit on post-2015 development agenda.

but amends the target's language slightly to reflect more precisely the 2005 WTO Hong Kong ministerial mandate.

The zero draft also reiterates in paragraph 78 the call in proposed SDG target 17.12 for implementation of duty-free quota-free (DFQF) market access for LDC exports, in accordance with relevant WTO decisions, including those taken at Bali. The zero draft would also have UN members "consider" simplifying preferential RoO for DFQF exports, which may be a wider, if less ambitious, target than language found in SDG target 17.12.

The zero draft in paragraph 77 would have WTO members reaffirm that special and differential treatment (S&D) is an integral part of WTO agreements, building on proposed SDG target 10.a, but goes further by adding a reference to the 2013 WTO Bali ministerial decision to establish a monitoring mechanism for S&D provisions. It also adds to the proposed SDG framework by calling in paragraph 76 for acceleration of developing country, particularly LDC, accessions to the WTO.

The final proposed SDG framework did not include references to trade facilitation. The zero draft usefully fills this gap by calling on WTO Members in paragraph 74 to ratify the 2013 WTO Trade Facilitation Agreement (TFA). This agreement focuses on the procedural aspects of trade facilitation, like customs systems, sometimes called "soft" trade infrastructure.¹ The zero draft complements the TFA by adding a focus on "hard" trade infrastructure in paragraph 79 by encouraging multilateral development banks and others to address gaps in regional trade and transport infrastructure.

Policy tensions around regional trade

Paragraphs 73 and 74 of the zero draft reiterate the SDG framework's commitment to strengthening the multilateral trading system and to concluding the DDA but also emphasise, drawing on language from paragraph 281 of the Rio+20 outcome document, the importance of "meaningful trade liberalisation" as a driver of sustained economic growth. The zero draft then goes on to underscore the importance of regional integration and regional trade and investment agreements, both issues which were not explicitly covered in the proposed SDG targets.

The draft also appears to acknowledge that there are policy tensions associated with the creation of regional trade rules. The first tension relates to the fragmentation of the trade system. In paragraph 79 the zero draft includes commitments both to strengthen regional integration and, where relevant, regional trade agreements. At the same time paragraph 74 commits to strengthen the multilateral trading system and to work towards reducing fragmentation resulting from international trade and investment agreements.

The second tension relates to balancing the benefits of trade rules with the right to regulate for other policy objectives. In paragraph 81 the zero draft suggests transparent negotiation and implementation of regional trade and investment agreements will help to ensure the agreements do not constrain policymakers' ability to address other sustainable development priorities, including addressing inequality, protecting the environment, or ensuring adequate tax revenues. The same paragraph would also see UN members commit to strengthen safeguards in investment treaties, through the review of investor-state-dispute-settlement (ISDS) clauses, in order to ensure policy space for social, economic, and environmental policy objectives.

Domestic policy frameworks

In paragraph 80 the zero draft calls on countries to "implement sound domestic policies and reforms conducive to realising the potential of trade for sustainable development." This crucial addition underscores the importance of countries' domestic policy frameworks for harnessing the benefits of trade for sustainable development. The national public finance section of the zero draft points to some relevant policies in this regard, including around transparent public procurement in paragraph 30, as well as the gradual elimination of harmful subsidies such as those to fossil fuel production and consumption in paragraph 33. Both of these issues are also reflected in some of the proposed SDG targets.

What's missing?

Read together the proposed SDGs and the zero draft provide a comprehensive, but arguably incomplete, to-do list for trade's contribution to sustainable development through to 2030. Some key elements that could be given greater priority are those that could support diversification of low-income economies. These include the reduction of trade costs, the importance of services, as well as support for building productive capacity to use the market access targeted in several of the proposed SDGs.

At a multilateral level it might be useful to articulate a role for the WTO beyond simply concluding the Doha Round and accelerating accessions. With respect to regional trade agreements, the financing for development outcome document could say more about how to address the two policy tensions hinted at in the zero draft. For example, the final outcome document could encourage governments to design regional agreements to be inclusive, to avoid, or limit potential fragmentation effects in the global trade system.

For low-income countries seeking to increase and diversify their exports, and become part of global value chains of production, reducing the costs of trade generally can be important. While the inclusion of trade facilitation in the zero draft is very welcome, experts have argued that having a specific reference to the reduction of trade costs could help to galvanise further action. Not only could this help to make exports more competitive but it could also widen the range of inputs available to produce those exports. Another element that could help to support the SDG targets on economic diversification and access to global value chains is an explicit reference to the importance of services both for domestic consumption and export.

More broadly, it would seem to make sense for the financing for development outcome document to underscore the importance of building productive capacity in low-income countries to trade both goods and services and explicitly link this to possible sources of support, such as Aid for Trade.

At a domestic level one area of perverse subsidies that is mentioned in the proposed SDG targets but not directly in the zero draft, despite its direct implications for sustainable development, is the reform of fisheries subsidies. Fishery trade is now woven into the reference to reform of distortions in agricultural markets, but this clouds the issue of agricultural market reform, and obscures the very real need to address harmful subsidies that contribute to unsustainable levels of fishing activity and distort global markets.

Trade visions

The proposed trade-related targets in the SDGs and the financing for development zero draft contain many of the key elements of a coherent trade agenda for sustainable development to 2030. Some gaps are nevertheless evident. The next fifteen years will present challenges and opportunities for many countries looking to manage the shift from commodity export-led growth to more sustainable and diversified production and consumption.

A coherent vision for trade's contribution to the post-2015 development agenda could emphasise the importance of building diversified productive capacity and mobilise support to do so. It could include support for targets around access to global value chains by underlining the importance of reducing the cost of both exports and inputs and investing in services. It could point to an ongoing active role for the WTO through to 2030 and signal the importance of ensuring that, as far as possible, regional trade agreements are designed to be inclusive.

This article draws on ideas discussed at ICTSD's dialogue on Trade in the Post-2015 Agenda: Building coherence held on 31 March 2015.



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① Portugal-Perez, Alberto and John S. Wilson, 2010, Export Performance and Trade Facilitation Reform: Hard and Soft Infrastructure, World Bank Policy Research Working Paper, No. 5261.

CLIMATE CHANGE

Countries submit climate action pledges ahead of Paris agreement

A new UN global climate agreement will be made up of individual national climate action contributions.

A total of 34 countries to date have submitted climate action pledges to the UN as part of a bid to hammer out a global climate deal in time for a meeting in Paris, France in December. Norway, Mexico, and the US all filed contributions in time for a 31 March target date for countries ready to submit. Russia and Gabon, taking some climate watchers by surprise, came forward with contributions on 1 April.

The new contributions joined early submissions by Switzerland and the EU. Norway's INDC submission in late March mirrors the EU in committing to a 40 percent reduction by 2030 compared to 1990 levels and this would be implemented through a collective delivery.

Altogether, the total pledges cover around 28 percent of global territorial emissions, according to climate trackers The Carbon Brief, equal to some 52.4 billion tonnes of greenhouse gas (GHG) emissions in 2012 excluding international aviation and shipping. Using WTO data, countries that have submitted INDCs so far account for 31 percent of total global goods exports in 2013, although these figures would likely be much higher if trade in services were included.

Parties to the UN Framework Convention on Climate Change (UNFCCC) – a multilateral climate forum – have decided that countries' national contributions will form the basis of a new universal emissions-cutting agreement to set to enter into force at the end of the decade.

"Over the coming months we expect many more nations to come forward to make their submissions public. The pace at which these contributions are coming forward bodes well for Paris and beyond," said Christiana Figueres, UNFCCC Executive Secretary, welcoming the first batch of national climate pledges in a [press release](#) at the end of last month.

Using WTO data, countries that have submitted INDCs so far account for 31 percent of total global goods exports in 2013, although these figures would likely be much higher if trade in services were included.

The UNFCCC press release also indicated that efforts were underway to help some 100 developing nations prepare their intended nationally determined contributions (INDCs), as the climate pledges are formally known, including through financial, technical, and other assistance. Countries reportedly receiving such support range from Bangladesh, Gambia, and Lebanon, to Colombia, Senegal, and Mali.

All eyes on US

The US' much-anticipated INDC submission, given its status as the world's current second largest aggregate greenhouse gas emitter, commits to a 26-28 percent economy-wide

emissions cut below 2005 levels by 2025. This goal draws on a bilateral deal with China to curb emissions unveiled last November. (See BioRes, [13 November 2014](#))

The US's three-page submission also reaffirms a pledge to cut emissions by 17 percent by 2020 against the 2005 baseline. The INDC lists domestic laws, regulations, and measures geared towards implementing these commitments. Sectors and actions covered include among others, fuel economy standards, energy efficiency measures, regulations on new and existing power plants, and efforts to curb methane emissions from landfills. The INDC submission also indicates that the country will not use international market mechanisms to implement the 2025 target, implying that all cuts will be made on US turf. International market mechanisms, ranging from carbon reduction projects in third countries to international carbon credit trading, has proved a tricky topic to navigate at the UN climate talks and parties remain divided on the role for market mechanisms in general under the new climate regime. (See BioRes, [19 February 2015](#))

The US suggests that its target is both fair and ambitious given that the 2025 target will require an approximate doubling of the annual pace of emissions reductions relative to those taken between 2005-2020. Washington also adds that this rate will be consistent with an economy-wide cut of 80 percent or more by mid-century.

At the UN climate talks last December in Lima, Peru, countries decided that INDCs could include information on the fairness and ambition of each submission. In contrast to some other INDC submissions, however, the US does not include certain contextual indicators such as economic capacity or mitigation potential that are often used to frame the emissions equity debate.

Some observers also noted that the US' INDC does not include information on climate adaptation action or climate finance. The Lima outcome also stipulated that parties could consider communicating their adaptation plans or including an adaptation component in each INDC.

Mexico mitigation and adaptation

Mexico at the end of March became the first developing country to submit a contribution to the new UN climate deal, a move broadly welcomed by a number of climate watchers. Under the UNFCCC, countries are largely classified as "developed" or "developing" through lists developed in 1992 to assign different levels of emissions reduction commitments, according to relative degrees of industrialisation. This distinction between groups of countries has since proved a major source of disagreement at the UN climate talks. The Mexican INDC is split into two components, outlining mitigation and adaptation related measures, with the mitigation section listing both unconditional and conditional emissions reductions.

Using its own resources, Mexico will reduce its greenhouse gases and short-lived climate pollutants (SLCP) by 25 percent below a business-as-usual (BAU) trajectory by 2030, which represents its first-ever unconditional multilateral climate pledge. This commitment implies a net emissions peak starting from 2026, which is consistent with Mexico's plan to reduce emissions by 50 percent by 2050 on 2000 levels, according to a ground-breaking national climate law agreed in 2012. Sectors covered by the Mexican INDC include energy, industrial processes, agriculture, waste, and land use, land-use change, and forestry.

The initial unconditional commitment could increase to a 40 percent conditional emissions cut, if the Paris agreement addresses topics such as an international carbon price, carbon border adjustments, and technology transfer. Border carbon adjustments refer to the possible imposition of a measure imposed on a good imported from another country deemed to have a less stringent emissions regime. The Mexican submission states that while the country's unconditional emissions pledge will be met without the use of an international market based mechanism, its conditional goal will require fully functional bilateral, regional, and international market mechanisms.

Mexico's INDC adaptation component outlines domestic actions to be undertaken between 2020-2030 in three areas including; protecting poor and vulnerable communities from climate impacts; ecosystem-based adaptation; and increasing the resilience of strategic infrastructure and production systems in order to preserve the country's future economic competitiveness.

Gabon, Russia forest divergence

At the start of this month, Gabon became the first African nation to submit an INDC, pledging 50 percent emissions reductions measured below an "uncontrolled" development scenario through to 2025. The Central African nation's contribution also includes a section on adaptation and climate finance.

According to Gabon's submission, the carbon stock stored in its forest biomass will not be included towards the its reductions, given that these forests absorb four times more carbon than the country currently emits. Gabon will put in place programmes to achieve cuts in land-use and forestry – reportedly its largest emitting sectors – reduce flaring from the oil and gas sector, and boost energy efficiency. While Gabon said it will not use internationally-traded carbon credits to meet its planned emissions cuts, the INDC indicates that it will set up a national market for carbon offsets, which will contribute to funding its climate policies.

Russia joined Gabon in submitting an INDC at the start of April, suggesting it would aim for a 25-30 percent reduction on 1990 levels, subject to the maximum possible account of absorbing capacity of forests. Half of the country is covered in forests and these absorb around 500 million tonnes of carbon dioxide each year. The Russian submission also states that its cuts are subject to the Paris UN meet outcome and other countries' INDCs.

Some climate watchers were critical of the Russian submission, pointing to existing laws that already commit the country to the same reductions as those signalled in the INDC, suggesting the country may not make many future cuts. Russia also indicates it will not use international market mechanisms for possible reductions between 2020-2030.

Global effort?

As the March initial deadline came and went, some observers criticised major economies such as Japan, Canada, and Australia, for failing to submit climate action plans. China unveiled its emissions-mitigation ambition last November alongside the US and Beijing has said it will submit an INDC in the coming months.

India, meanwhile, signalled last week that it would not bow to foreign pressure to cut emissions. Prime Minister Narendra Modi has nevertheless in the past outlined the risks posed by climate change and pushed for ambitious renewable energy targets – aiming at 100 gigawatts (GW) of solar power by 2022 in the country.

Research by the New Climate Institute, a climate policy think tank, suggests that INDC submissions covering around half of global emissions will have been made by June. This figure could rise to around 75 percent by the December Paris meet.

The UNFCCC secretariat has been instructed by parties to prepare a synthesis report by the beginning of November based on INDCs communicated by early October. According to the secretariat, the INDCs will likely not add up to an agreed-upon goal of keeping the world below a two degree Celsius planetary warming rise from pre-industrial levels. Figueres said last month that the Paris agreement would need to respond to this challenge by including a long term emissions reduction trajectory.

While many of the INDCs submitted so far include long term goals, one likely challenge ahead in the negotiations will be organising these into a coherent vision, and responding to calls by some negotiating groups for even more aggressive emissions cuts. African environment ministers, for example, at a conference in early March called for global efforts to keep the temperature rise to 1.5 degrees Celsius from pre-industrial levels.

ENVIRONMENT

TPP talks near crunch point, environmentalists eye deal

Trade talks between 12 Asia-Pacific nations could be signed off in the coming months.

The next few weeks are expected to be crucial ones for the 12-country Trans-Pacific Partnership (TPP) talks, as trade observers slate a planned trip by Japanese Prime Minister Shinzo Abe to the US later this month and a possible ministerial-level meeting of the TPP countries in May as opportunities for progress, before the American election cycle kicks into high gear.

Through the TPP deal, the US and Japan together with 10 other negotiating partners, are aiming to secure a new trade and investment agreement for the Asia-Pacific region. The proposed agreement would cover 40 percent of the global economy and nearly 800 million consumers. Alongside eliminating or reducing tariffs on thousands of product lines, the deal is also slated to feature chapters on disciplines ranging from intellectual property, digital commerce, the environment, and state-owned enterprises, among others.

While the negotiations have made good progress, according to participants, some key issues have at times waylaid the talks. These include, for example, divisions between the US and Japan over agriculture and automobile trade. The two largest economies in the proposed deal have been conducting bilateral talks over the past year in a bid to make a breakthrough.

Much of the public focus around TPP now currently also rests on efforts by the US Congress to renew "fast track" trade power, known formally as the Trade Promotion Authority (TPA), which allows the US executive branch to submit completed international trade deals to Congress for a straight up-or-down vote, without amendments. It also allows US lawmakers to set negotiating objectives for such agreements. A number of trade analysts have said that securing TPA will be critical for clinching TPP. (See *Bridges Weekly*, 2 April 2015) [Editor's note, *Bridges Weekly* is ICTSD's flagship publication on international trade news]

Environment chapter debate

However, an official blog post at the end of March outlining some of the US' commitments to use the trade agreement to address environmental challenges was panned by several environmental groups, who said that it misrepresented their stance on the talks. The post listed support from groups such as Oceana and WWF for planned efforts in the TPP to tackle illegal wildlife trade, protect forests and oceans, and enforce multilateral environmental commitments. Officials from these groups reportedly told the Huffington Post that, while they supported such efforts, they did not endorse the TPP pact outright and were instead waiting to see the final shape of the agreement.

The TPP nations include some of the planet's most biodiverse regions. Eight of the world's top 20 fishing nations, together accounting for a quarter of global marine catch and seafood exports, are part of the planned agreement. For its part, Washington has said that the TPP is on track to discipline some harmful fisheries subsidies among participants, as well as combat illegal fishing. (See *BioRes*, 18 March 2015)

Meanwhile a 20 January version of the TPP investment chapter, leaked by anti-government secrecy website Wikileaks last month, has raised concerns among some other green groups who worry that it could give companies grounds to challenge domestic laws geared towards protecting the environment.

RENEWABLE ENERGY

Australia rules against duties for Chinese solar imports

Trade spats over clean energy goods have become more frequent in recent years.

Australia's Anti-Dumping Commission has published the results of its investigation into the alleged dumping by Chinese companies of crystalline silicon photovoltaic (PV) solar panels and modules on the domestic market. The ruling came after the body was granted several extensions by Canberra to conclude its work on the case.

Following a near year-long investigation, the Commission found that PV modules or panels exported from China between during the period 1 July 2012 to 31 December 2013 were sold in Australia at dumped prices – in other words, sold at prices below the market value. The report identified four primary Chinese companies involved, including Trina Solar and ET Solar.

The Commission also found, however, that injury to Australian industry from these actions was negligible and therefore has decided not to pursue further action. The decision implies that the anti-dumping probe will now be wound up without the imposition of any retaliatory duties on the Chinese goods in question.

No injury

The investigation, launched last May, was prompted by a complaint filed by Tindo Manufacturing Party Ltd., a manufacturer of crystalline silicon photovoltaic modules and panels.

The wafers and cells used in these modules and panels; portable solar chargers consisting of less than six cells that are used to charge batteries or provide electricity to devices; and PV products that are permanently integrated into electrical goods not used for power generation were all excluded from the Australian probe.

The South-Australian based company last year said that the alleged dumping of certain PV modules and panels had caused material injury, through the loss of sales revenue, price depression and suppression, loss of profit, and reduced profitability. (See BioRes, [21 May 2014](#))

The Commission said its decision not to pursue punitive duties had been influenced by the small size of the dumping margins, and the fact that Tindo's primary product was alternating current (AC) PV modules or panels, while the imports from China were found to be predominantly direct current (DC) PV modules.

The Commission's investigations also found that AC modules were a premium product and commanded a higher price than the imported DC modules.

Companies have 20 days to respond to the report before the case is closed. Speaking with journalists, Tindo Managing Director Adrian Ferraretto said that the company was evaluating the report, and considering its next move.

Over two-thirds of Australia's solar module imports come from China, according to some analysts, who had cautioned against imposing the duties in order to avoid costs for downstream users.

Meanwhile, investment in Australian renewable energy more generally plummeted last year, falling from US\$2.1 billion in 2013 to US\$330 million. Some industry representatives told the Financial Times earlier this month that the figures reflected uncertainty around the future of the country's renewable energy target (RET).

Booming Chinese solar market, trade spats

Elsewhere, global investment in renewable power surged in 2014, hitting US\$270.2 billion, nearly 17 percent higher than the previous year. According to the UN-sponsored data, this clean energy investment boom was driven partly by significant solar installations in China and Japan.

Investment in China's solar sector reached record levels last year totting up to almost US\$40 billion, up by 45 percent on the previous year. Utility-scale solar projects – with more than one megawatt (MW) capacity – made up around three quarters of this investment.

The recent Australian probe, however, follows a series of trade spats in recent years centred on China's booming renewables sector.

The US has imposed hefty duties on Chinese and Taiwanese solar product manufacturers after an investigation concluded last December found evidence of unfair trade practices. (See BioRes, 29 January 2015)

Canada meanwhile in March imposed preliminary duties ranging from 9.14-286.1 percent on certain photovoltaic modules and laminates exported by Chinese companies after finding evidence of alleged dumping and unfair subsidisation. The final decision on these duties, however, will be made by the Canadian International Trade Tribunal in the next four months.

The EU, which in 2013 reached a "price undertaking" arrangement with Beijing on dumping and subsidisation of Chinese-made solar panels, in January re-opened another anti-dumping investigation into imports of Chinese solar glass. Solar glass is used primarily to make solar panels, though it can also be used in furniture and for horticultural purposes.

Although the solar glass market is a considerably smaller market in comparison with solar panels, some clean energy experts have suggested that the move could reignite tensions between the EU and China, while others warn that a hike in duties would increase costs for European solar manufacturers. (See Bridges Weekly, 15 January 2015) [*Editor's note, Bridges Weekly is ICTSD's flagship publication on international trade news*]

"Green goods" trade talks

Concurrently, Australia, the US, EU, Canada, and China are all involved in negotiations for an Environmental Goods Agreement (EGA) geared towards boosting trade in green goods. These talks are aimed initially at lowering regular import tariffs, however, and do not currently address issues such as trade remedies.

The talks have so far held five discussion rounds in Geneva, Switzerland in order to clarify possible goods to include in the agreement. Solar cells, panels, and modules, are already duty-free in all EGA markets due to the initiative's current participants also being signatories to the WTO's Information Technology Agreement (ITA) – a separate plurilateral tariff-cutting initiative covering select information and communication technology (ICT) products.

Various other goods related to the clean energy sector and supply chain could, however, still usefully be included in the EGA according to some researchers.

The talks are set to move into a second negotiation stage in the first full week of May, aimed at whittling down lists of proposed goods put forward by each EGA member. While many of these lists are not public, Korea made its list available earlier this month, signalling that it supported 43 items for tariff elimination. These products range from LED lighting equipment, carbon fiber, and vacuum cleaners.

The newssroom

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OECD countries' export credits favour fossil fuels

According to data by Organisation for Economic Co-operation and Development (OECD), developed nations have invested nearly five times more in fossil fuel technology exports than in renewable energy technology over the last decade, media reports claimed in March.

Leaked papers seen by Reuters suggested that between 2003 and 2013 OECD member states spent over USD\$89 billion on export credits for fossil fuel technology and extraction while allotting just over USD\$16 billion in export credits for renewable energy technology. The OECD is unable to comment on confidential documents.

By the time the UN summit in Paris rolls around in December, the OECD wants countries to cooperate in ensuring export credits play a role in helping climate change mitigation. The EU, which comprises two thirds of OECD membership, recently proposed a compromise to make export funding more selective but has received pushback from Poland.

EU Parliament supports Baltic fishing plan

A group of lawmakers in the European Parliament's Fisheries Committee in late March backed a draft plan proposed by the EU Commission in October to tackle the overfishing of cod, sprat, and herring populations in the Baltic Sea. The management plan utilises a multispecies approach to take into account the interdependence of all three species since the health of one affects the others. The plan would also address species such as plaice, flounder, and turbot that are often caught accidentally alongside. This is the first proposal of its kind to be implemented under the EU's reformed common fisheries policy, which aims to ensure all fish stocks are managed at a sustainable level by 2020 at the latest.

EU parliamentarians amended the Commission's initial proposal in order to stipulate that no more fish are caught than the respective stock can reproduce in a given year. The draft will move to a vote in full plenary in April before negotiations between member states and parliamentarians.

Record renewables investments in 2014

A report published by the UN Environment Programme (UNEP) and Bloomberg New Energy Finance (BNEF) has found that new installed renewable energy generating capacity, especially in the form of solar and wind, reached over 100 gigawatts (GW) last year.

According to the analysis, from 2013 to 2014 investment in solar and wind energy increased by 29 percent and 11 percent, respectively. Global investment in renewable energy sources rose altogether by 17 percent in 2014, reaching a total of US\$270 billion. The surge in investment is headed by China – who raised its 2013 spending in the renewables sector by a third last year – and is followed by the US, and Japan. The authors suggest that innovation in the sector is gaining momentum globally while the cost of financing renewables has decreased substantially. However, the report argues that the renewables sector continues to face some challenges, including falling global oil prices and the loss of investor confidence in the face of inconsistent government policies.

EU makes progress on biofuels cap agreement

EU lawmakers and member states reportedly reached a deal at the beginning of April on a legal text that would place a seven percent limit on the use of crop-based biofuels for energy in the transport sector. Existing legislation requires that renewable sources make up at least 10 percent of energy in transport in EU member states by 2020. Separate legislation requires a six percent reduction in the carbon footprint of transport fuels by the same year.

However, calls for tighter restrictions on the use of crop-based biofuels to meet these clean energy objectives came after some groups argued that biofuels inflate food prices, and incentivise deforestation. The topic has nevertheless proved a source of division between EU institutions. The European Parliament's Environment Committee in February backed a six percent limit, while member states pushed for the higher threshold, arguing that a lower cap could put jobs and investment in renewables at risk. According to news reports, the Environment Committee will vote on the deal on Tuesday, which must then be endorsed in full plenary.

UN post-2015 talks focus on draft SDGs

In mid-March, delegates met in New York to flesh out details of the post-2015 development agenda, with talks focused on possible revisions to the proposed sustainable development goals (SDGs) and how to measure their success. Following a 2012 UN mandate, the SDGs are slated to form a core part of the post-2015 development agenda and will replace the current Millennium Development Goals (MDGs) when they expire at the end of this year.

The March talks focused on an informal document outlining 19 possible revisions, aimed at enhancing technical clarification, to the targets set out in last July's SDG proposals. Delegates also discussed how best to move forward on developing an SDG indicator framework. The UN Statistical Commission (UNSC) introduced a technical report, which rated 300 potential indicators for the current proposed SDG targets on an A-C grading scale based on their feasibility, suitability, and relevance.

Delegates will convene again in late April to discuss remaining issues related to financing development and achieving the proposed SDGs.

ACP Group pushes for fishery subsidies reforms

The African, Caribbean and Pacific (ACP) Group of countries has tabled a series of elements that it says should define a potential WTO work programme on the Doha Round talks, according to a communication circulated by Barbados on the Group's behalf last month.

Among other things, the ACP Group flags tackling fisheries subsidies that contribute to overcapacity and overfishing, as important to include in an agenda to conclude the global trade body's long-running talks.

Regarding the latter, the communication lists, for instance, those subsidies provided to vessels undertaking fishing practices that significantly harm vulnerable marine ecosystems and habitats; subsidies provided to vessels engaged in illegal, unreported, and unregulated (IUU) fishing; as well as subsidies provided to any fishing vessel or fishing activity affecting overfished stocks.

WTO members are currently trying to elaborate a work programme to wrap up Doha ahead of a July deadline. The ACP Group's submission builds on its previous positions under the Doha Round talks.

CITES takes action against illegal elephant poaching

An international committee tasked with providing policy guidance on the regulation of wildlife trade has recommended that the 180 parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) suspend all commercial trade in CITES-listed species with Nigeria, the Democratic Republic of Congo (DRC), and the Lao People's Democratic Republic.

These so called compliance measures were deployed by the 19-member CITES standing committee after the three nations failed to submit National Ivory Action Plans (NIAPs) geared towards tackling a rampant international illegal ivory trade.

Shortly after CITES took action against the three countries, an international conference to tackle illegal wildlife trade was held in Kasane, Botswana where 32 participating countries pledged to initiate new actions to stamp out the harmful, illicit commerce.

Despite recent international efforts, African elephant poaching rates remained practically unchanged last year from 2013, according to data released at the conference.

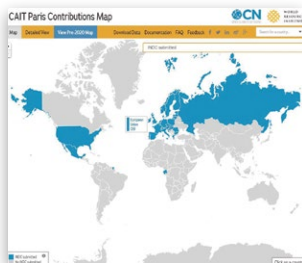
EGA talks on track for negotiation stage

Talks towards securing a tariff-cutting deal on environmental goods are now ready to shift from technical discussions into a second negotiation stage, trade sources confirmed after the fifth round held in March in Geneva, Switzerland.

This next negotiating stage would focus on whittling down a compilation of potential tariff lines to a final list slated for tariff liberalisation under the Environmental Goods Agreement (EGA) negotiations, as these trade talks are formally known. A current draft compilation of most participants' indicative proposals made during the last eight months of scoping discussions numbers at nearly 600 tariff lines and goods.

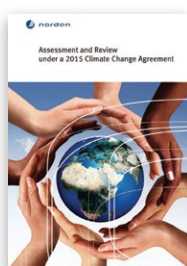
To date the talks among the now 17 participating WTO members have covered products falling under ten categories of environmental goods since kicking off in July last year. The March discussions focused specifically on possible products relating to the categories of environmental monitoring, analysis, and assessment (EMAA), environmentally preferable products (EPP), as well as resource efficiency.

Publications and resources



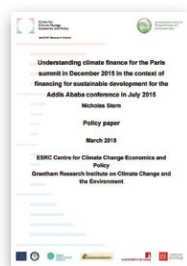
CAIT Paris Contributions Map – WRI – March 2015

A new online tool, launched by the World Resources Institute (WRI), is designed to help track and analyse countries' national contributions to the expected UN global climate deal. Parties to the UN Framework Convention on Climate Change (UNFCCC) have committed to submit national climate action plans geared towards keeping the world below a two degree Celsius warming rise from pre-industrial levels and coping with climate impacts already locked in. WRI's Paris contributions map helps to visualise countries' submissions and compare relevant information. The map can be accessed at <http://bit.ly/1xRe6Ys>



Assessment and Review under a 2015 Climate Change Agreement – Norden – March 2015

This study published by the Nordic Council of Ministers (Norden) identifies a range of options for designing and organising an assessment of countries' national contributions to the expected UN global climate deal. The study supports an ex ante review of the national contributions before a UN meeting scheduled to be held in Paris, France in December. While the report acknowledges the limited room for formal multilateral assessment, it nonetheless encourages countries to conduct informal reviews, including through bilateral and plurilateral talks. The paper can be accessed at <http://bit.ly/1G4ZS9i>



Understanding Climate Finance for the Paris summit in December 2015 in the Context of Financing for Sustainable Development for the Addis Ababa Conference in July 2015 – CCCEP, GRICCE – March 2015

This paper, authored by Nicholas Stern and published by the Centre for Climate Change Economics and Policy and the Grantham Research Institute on Climate Change and the Environment, argues that governments should not create a "rigid separation" between their overseas aid for supporting development and tackling climate change. Lord Stern's paper proposes six priority areas in relation to climate finance for development support including among others, promoting lower carbon infrastructure, energy efficiency measures, and funding adaptation. The paper can be accessed at <http://bit.ly/1C7Lbe0>



Pro-Poor Resource Governance under Changing Climates – IASS – March 2015

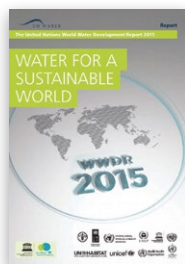
This study, by the Institute for Advanced Sustainability Studies (IASS), argues that climate change and the unequal distribution of resources needs to be address through a pro-poor resource governance approach. Using case studies from countries such as Bangladesh, Bolivia, India, and Ecuador, the paper addresses food security, alternative methods of sustainable development, responses to natural environment damage, and strategies for resolving resource conflicts. The paper can be accessed at <http://bit.ly/1aiAmR1>



Climate Change Vulnerability in Fisheries and Aquaculture: A Synthesis of Six Regional Studies – FAO – March 2015

This paper, published by the UN Food and Agriculture Organization (FAO), presents six case studies from the Lake Chad Basin, Caribbean, Mekong Delta, Benguela Current, Pacific Island countries and territories, and Latin America. It discuss each region's sensitivity and vulnerability to climate change, determinants of resilience, as well as recommendations and barriers to adaptation. The paper lists some priorities for adaptation to climate change in fisheries and aquaculture in these regions.

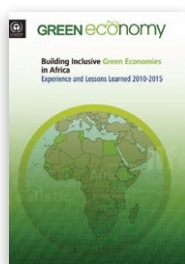
The paper can be accessed at <http://bit.ly/1BPUFfa>



UN World Water Development Report 2015, Water for a Sustainable World – WWAP – March 2015

The latest UN water report by the World Water Assessment Programme (WWAP) looks at how water resources and services are essential to achieving global sustainability. The report examines how future development challenges will affect and be affected by water resources, services, and related benefits. The report provides an overview of major and emerging trends from around the world with some examples of how water challenges have been addressed, implications for policymakers, and potential actions that can be taken by stakeholders and the international community.

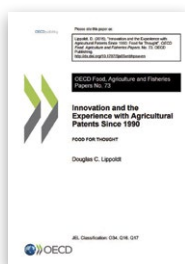
The paper can be accessed at <http://bit.ly/1G50N9I>



Building Inclusive Green Economies in Africa: Experience and Lessons Learned, 2010-2015 – UNEP – March 2015

This synthesis report from the UN Environment Programme (UNEP) provides an overview of where African economies stand in terms of transitioning to an inclusive green economy. The report draws on studies designed to summarise prospective gains and challenges associated with investing in a green economy. It also outlines ways to prioritise policy reforms and suggests how a transition to a green economy may be achieved across a range of country conditions.

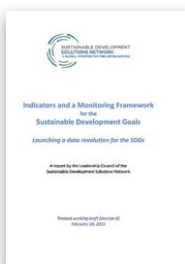
The report can be accessed at <http://bit.ly/1BQ7Ljd>



Innovation and Experience with Agricultural Patents since 1990: Food for Thought – OECD –February 2015

This report from the Organisation for Economic Co-operation and Development (OECD) examines the economic impact of agricultural patents and reform since 1990 in both OECD and non-OECD countries. The author provides an overview of the international framework for intellectual property protection. The author argues that although most agricultural patent innovation has occurred in OECD countries, innovation in this area is increasing in developing countries. An econometric analysis also assesses the relationship between patenting and selected indicators of innovation and economic performance.

The full paper can be accessed at <http://bit.ly/1ImqHDf>



Indicators and a Monitoring Framework for the Sustainable Development Goals: Launching a Data Revolution for the SDGs – SDSN – February 2015

This report by the Sustainable Development Solutions Network (SDSN) outlines how indicators might be established to support the sustainable development goals (SDGs) and targets put forward by a dedicated UN working group last July. The report draws on global discussion and consultations with a range of experts. The report proposes 100 global monitoring indicators, along with suggestions for complementary national indicators, to track progress on the SDGs.

This report can be found at <http://bit.ly/1yzHwW3>



National Greenhouse Gas Accounting for Effective Climate Policy on International Trade – Nature Climate Change – January 2015

This paper, published in science journal Nature Climate Change, argues that production-based accounting for greenhouse gas emissions does not account for carbon leakage where industry and associated emissions relocate abroad to jurisdictions with less stringent climate policies. The authors propose a modified form of consumption-based carbon accounting that takes technology differences in export sectors into account.

The paper can be accessed at <http://bit.ly/1Mztyzo>

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Price: €10.00
ISSN 1996-9198

